Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A ~~manufacturing method of~~ method of manufacturing a fuel ~~cell, which comprises~~ cell having a hydrogen-permeable metal layer ~~of a hydrogen-permeable metal~~ and an electrolyte layer ~~that is located~~ disposed on the hydrogen-permeable metal layer, ~~and has proton conductivity, said~~ the ~~manufacturing~~ method comprising:

forming ~~a thin~~ an electrolyte layer on the hydrogen-permeable metal layer, wherein the electrolyte layer has pores; and

forming a conductive layer on the ~~formed thin~~ electrolyte layer ~~electronically discontinued with~~ such that a portion of the conductive layer formed on the electrolyte layer is discrete from a portion of the conductive layer formed inside the pores of the electrolyte layer. ~~the hydrogen-permeable metal layer via the pores, wherein the conductive layer has electrical conductivity.~~

2. (Currently Amended) ~~A manufacturing~~ The method ~~in accordance with~~ of claim 1, wherein the conductive layer is an electrode.

3. (Previously Presented) ~~A manufacturing~~ The method ~~in accordance with~~ of claim 1, wherein ~~said~~ the forming a conductive layer is implemented by releasing a conductive material toward ~~the thin~~ the electrolyte layer in a direction perpendicular to ~~the thin~~ the electrolyte ~~layer, so as to form~~ layer such that the conductive layer ~~that is~~ is formed thinner than ~~the thin~~ the electrolyte layer.

4. (Currently Amended) ~~A manufacturing~~ The method ~~in accordance with~~ of claim 1, wherein ~~said~~ the forming a conductive layer is implemented by releasing a conductive material toward ~~the thin~~ the electrolyte layer at ~~a specific~~ an angle that prevents the conductive material from being deposited ~~on surface~~ on a surface of the hydrogen-

permeable metal layer, which is exposed ~~on the~~ by the pores ~~present in the thin~~ of the electrolyte ~~layer, so as to form the conductive layer.~~layer.

5. (Currently Amended) ~~A manufacturing~~ The method ~~in accordance with~~ of claim 3, wherein ~~said~~ the forming a conductive layer is implemented ~~by adopting~~ using a vacuum deposition ~~technique to form the conductive layer.~~technique.

6. (Currently Amended) ~~A manufacturing~~ The method ~~in accordance with~~ of claim 1, wherein ~~said~~ the forming the conductive layer further comprises:

forming a dielectric layer in the pores ~~present in~~ of ~~the thin~~ the electrolyte layer, wherein the dielectric layer is ~~mainly made~~ made primarily of an insulating material and blocks off a connection between ~~surface~~ the surface of the hydrogen-permeable metal layer, ~~which is exposed on the pores present in the thin electrolyte layer,~~ and an area outside of the pores; and

coating ~~the thin~~ the electrolyte layer and the dielectric layer ~~formed in the pores of the thin electrolyte layer~~ with the conductive layer.

7. (Currently Amended) ~~A manufacturing~~ The method ~~in accordance with~~ of claim 6, wherein ~~said forming a~~ the forming the dielectric layer is implemented by filling the pores of ~~the thin~~ the electrolyte layer with dielectric fine particles to form the dielectric layer.

8. (Currently Amended) ~~A manufacturing~~ The method ~~in accordance with~~ of claim 6, wherein ~~said forming a~~ the forming the dielectric layer is implemented by ~~coating~~ coating an inside of the pores of ~~the thin~~ the electrolyte layer with an insulating material by ~~plating to form the dielectric layer.~~plating.

9. (Currently Amended) ~~A manufacturing~~ The method ~~in accordance with~~ of claim 6, wherein ~~said forming a~~ the forming the dielectric layer further comprises:

~~coating~~ coating the inside of the pores of ~~the thin~~ the electrolyte layer with a metal, which is oxidized to an insulating material, to form a metal coat layer; and

oxidizing the metal coat layer to form the dielectric layer.

10. (Currently Amended) ~~A manufacturing~~ The method ~~in accordance with~~ of claim 1, wherein ~~said forming a~~ the forming the conductive layer further comprises:

filling the pores ~~present in~~ of ~~the thin~~the electrolyte layer with fine particles;

forming the conductive layer on ~~the thin~~the electrolyte layer having the pores filled with the fine particles; and

removing the fine particles from the pores, subsequent to ~~said forming~~ the forming the conductive layer on ~~the thin~~the electrolyte layer.

11. (Currently Amended) ~~A manufacturing~~ The method ~~in accordance with~~ of claim 10, wherein ~~said removing~~ the removing the fine particles is implemented ~~by adopting~~ using a chemical ~~technique to remove the fine particles.~~technique.

12. (Currently Amended) ~~A manufacturing~~ The method ~~in accordance with~~ of claim 10, wherein ~~said removing~~ the removing the fine particles is implemented by adopting a physical technique to remove the fine particles.

13. (Currently Amended) ~~A manufacturing~~ The method ~~in accordance with~~ of claim 1, wherein ~~said forming a~~ the forming the conductive layer further comprises:

forming a protective layer to cover ~~the thin~~the electrolyte layer; and

forming the conductive layer on the protective layer.

14. (Currently Amended) ~~A manufacturing~~ The method ~~in accordance with~~ of claim 13, wherein ~~said forming a~~ the forming the conductive layer further comprises:

removing the protective layer and fixing the conductive layer to ~~the thin~~the electrolyte layer.

15. (Currently Amended) ~~A manufacturing~~ The method ~~in accordance with~~ of claim 13, wherein the protective layer is ~~mainly made~~ made primarily of an insulating material having proton conductivity.

16. (Currently Amended) ~~A manufacturing~~ The method ~~in accordance with~~ of claim 1, wherein ~~said forming a~~ the forming the conductive layer is implemented by coating ~~the thin~~the electrolyte layer with particles of an electrically conductive material having a ~~greater~~ particle diameter greater than a width of the pores ~~present in~~ of ~~the thin~~the electrolyte ~~layer, so as to form the conductive layer.~~layer.

17. (Currently Amended) ~~A manufacturing~~ The method ~~in accordance with~~ of claim 16, wherein ~~said forming a~~ the forming the conductive layer is implemented ~~by adopting~~ using one of arc ion plating, emulsion deposition, and cluster beam deposition ~~techniques to coat the thin electrolyte layer with the electrically conductive material.~~techniques.

18. (Currently Amended) ~~A manufacturing~~ The method ~~in accordance with~~ of claim 1, wherein ~~said forming a~~ the forming the conductive layer is implemented by applying a paste~~, which contains an electrically conductive material and has a predetermined level of viscosity for effectively preventing invasion of the paste into the pores present in the thin electrolyte layer,~~ onto ~~the thin~~ the electrolyte ~~layer, so as to form the conductive layer.~~layer.

19. (Currently Amended) ~~A manufacturing~~ The method ~~in accordance with~~ of claim 1, wherein ~~said forming a~~ the forming the conductive layer further comprises:

forming a conductive ~~film of an electrically conductive material; and~~film; and

transferring the conductive film onto ~~the thin~~the electrolyte ~~layer, so as to form the conductive layer.~~layer.

20. (Currently Amended) A fuel cell comprising a hydrogen-permeable metal layer ~~of a hydrogen-permeable metal and an thin~~ and an electrolyte layer ~~that is located~~ disposed on the hydrogen-permeable metal ~~layer and has proton conductivity,~~layer,

~~said~~ the fuel cell being manufactured ~~by a~~ by the ~~manufacturing~~ method ~~in accordance with~~ of claim 1.

21. (Currently Amended) ~~A manufacturing~~ The method ~~in accordance with~~ of claim 1, wherein the pores are through-holes.